

REMARKS

Reconsideration is respectfully requested in light of the foregoing amendments and remarks which follow.

Claims 1-8 are before the Examiner. By this response, claims 1 and 5-8 have been amended; claim 4 has been cancelled and claim 9 has been added. The amendments to claims 1 and 5-8 were editorial in nature and address points raised in the Office Action. As to the new claim 9, support for the viscosity range is found on page 7 and is supported by Table 5. No new matter is belied to have been introduced.

Claims 4 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully traverse.

Claim 4 has been cancelled which moots its rejection. Claim 5 has been amended to recite the range 120-266, which the Examiner has determined to be supported and enabled. The reasoning advanced by the Examiner suggests that he had concerns relative to the “approximately” modifier. The use of “at least” is consistent with a lower threshold limit.

Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully traverse.

Claim 4 has been cancelled which moots the rejection.

Withdrawal of the rejection is respectfully requested.

Claims 7-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse.

The points raised by the Examiner in the Office Action have been considered. Please

consider 3M Innovative Properties Co. v Avery Dennison Corp., 69 USPQ2d 1050 (Fed. Cir 2003), cert denied., 124 S. Ct. 2877 (2004). There the Court held that terms such as “superimposed” and “embossed” were structural limitations and were not considered product by process limitations.

Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 4-5 are rejected under 35 U.S.C. 112, fourth paragraph, as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicants respectfully traverse. Applicants respectfully traverse.

Claim 4 has been cancelled which moots its rejection. Claim 5

Claims 1-3 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Azechi et al. (U.S. 6,331,558). Applicants respectfully traverse.

Azechi et al. (U.S. 6,331,558) is discussed in paragraph [0003] of the published application (No. 2007/0173587). The ‘558 patent is described as disclosing a liquid silicone rubber (LSR), which contains pyrogenic silicas as fillers. Further, it is stated that in order to prevent the undesirable influence of the silanol groups on the mechanical properties of the silicone rubber, it is necessary to render the surface of the pyrogenic silica hydrophobic.

There is no disclosure of a structural modification step which results in the claimed DBP % values. The paragraph starting at line 10 in col. 5, identified by the Examiner, has been considered. The paragraph mentions fluidized beds and mechanical milling devices. However, the milling conditions are not described in detail. It is not clear that the powder form referenced in the paragraph represents a destructured pyrogenic product like that claimed. Nargiello et al. (US 6,193,795) identify specific conditions for destructuring to occur. See col. 3 starting at line 25. Those conditions are not apparent in Azechi et al. Also compare the viscosities reported in

the specification (Pas) with those reported in Tables 1 and 2 of Azechi et al. (poise) - Applicants' Example 3 (510 poise; 51 Pas) v Azechi et al.'s initial value (3500 poise (350 Pas)). Consider also Applicants' educt (non-destructured) has a viscosity of 153 Pas (1530poise) and Azechi et al. Table 1 (untreated silica S1) initial viscosity of 7000 poise (700 Pas). (Conversion Tables available on the Web were employed in the conversions). Inherency is not established by the passages identified in the Office Action. The presence of inherent values must be established with reasonable certainty. It is believed that the differences in viscosity should be weighed relative to the mere mention of mixing in the reference.

The passage dealing with silica fines starting in col. 4 of Azechi et al. at line 53 has been considered. Compacted silica is not mentioned. Destructured silica is also not mentioned.

Further the problem addressed by Azechi et al.- pot life and moldability- is not the problem addressed by Applicants. Consider paragraph [0023] of the published application. Applicants addressed the discovery of entirely novel properties when their low-structured, pyrogenic silicon dioxide is incorporated into silicone rubber. Consider Tables 5 and 6 of the present specification. (The comparisons available educt v. Sil7, 11 and 3 do suggest the improvements shown in Tables 5 and 6 can be attributed to destructuring of the silanized pyrogenic silica educt. In this regard, consider Tables 2 and 3 and the comparisons made. More than silanization is fairly shown as a factor.)

It is submitted that each and every element required by the claims is not taught by Azechi et al. There is no anticipation. There are no properties apparent in Azechi et al. patent that suggest the inherent presence of the claimed rubber product. In fact, the properties that can be compared mitigate against a finding of inherency. This is consistent with the background section of the present application. The Examiner's degree of caution as evident in the Office Action is appreciated.

Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 1-3 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azechi et al (U.S. 6,331,558) in view of Scholz et al. (U.S. 2003/0195290). Applicants

respectfully traverse.

Scholz et al. has been considered as have the portions of the reference relied upon by the Examiner.

Scholz et al. is directed to a room temperature crosslinking, one component (RTV 1C) silicone rubber formulation with hydrophobic, silica featuring extremely low water absorption, a high level of whiteness, and fine-tunable, storage-stable rheological properties with a high reinforcing action in the silicone rubber vulcanizate. The components and their functioning have been considered. Scholtz et al. do teach the use of from 0.5 to 60% by weight of hydrophobic silica. While there is mention of a silicone coated base silica having DBP values less than 200, there is no mention of deconstructing pyrogenic silica. There is no mention milling conditions that would produce a destructured product. There is no mention of compaction using rollers. AEROSIL products are mentioned, e.g. Example 7. These AEROSIL products are not destructured. The silica product described in the claims is not taught.

It is not believed that teachings of Scholz et al. address the deficiencies of Azechi et al., discussed above.

Since Scholz et al. do not teach the filler as claimed, obviousness would have been more than a simple substitution of the Scholz et al filler for that of Azechi et al. One would have to create the claimed filler without sufficient guidance. Further, one should consider the benefits shown in present Tables 5 and 6. The results of Examples 1-3 are similar relative to viscosity. There are differences relative to tear resistance. Consider Tables 2 and 3.

Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azechi et al (U.S. 6,331,558) in view of Kobayashi et al. (US 2002/0077412) or alternatively over Azechi et al (U.S. 6,331,558) in view of Scholz et al. (U.S. 2003/0195290) as applied to claim 1 above, further in view of Kobayashi et al. (US 2002/0077412). Applicants respectfully traverse.

The alternative rejections focus on the affect of the inclusion of the teachings of Kobayashi et al. with those of Azechi et al (U.S. 6,331,558) and Azechi et al (U.S. 6,331,558) taken in view of Scholz et al. (U.S. 2003/0195290) as applied to claim 1 above, respectively.

The deficiencies of the teachings of Azechi et al. are discussed above relative to the amended claims are discussed above. The combined teachings of Azechi et al (U.S. 6,331,558) taken in view of Scholz et al. (U.S. 2003/0195290) are also discussed above.

Kobayashi et al. teach a six component water repellent silicone coating agent composition. One of the components is a hydrophobic surface treated dry process silica having a carbon content of 3.7 to 5% by weight and a bulk density of 40 to 99 g/L, or a hydrophobic surface treated dry process silica having a carbon content of 2.7 to 5% by weight and a bulk density of 100 to 300 g/L. The silica is not identified as pyrogenic, destructured or densified. No DBP values are given. The silica filler described in the claims is not taught.

It is not seen how the teachings of Kobayashi et al remedy the deficiencies of Azechi et al. or the deficiencies of the combination of Scholz et al. and Azechi et al., discussed above.

Since neither Scholz et al. nor Kobayashi et al. teach the filler as claimed, obviousness is more than a simple substitution of the Scholz et al. or Kobayashi et al. filler for that of Azechi et al. One would have to create the claimed filler without sufficient guidance- why destructure the Azechi et al. filler and to what degree. Further, one should consider the benefits shown in present Tables 5 and 6. The results of Examples 1-3 are similar relative to viscosity. There are differences relative to tear resistance. Consider Tables 2 and 3. The applied art is even further removed when one considers the criticality of the choices involved. The present claims are believed to be commensurate in scope with the showings provided in the specification- type of surface modification, degree of destructuring (DBP) and silicone rubber, e.g. LSR.

Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 1-3 are rejected on the ground of non-statutory obviousness type double patenting as being unpatentable over claims 1-2 of U.S. Patent No. 7,563,839 ('839) in view of Azechi et al. (US 6,331,558). Applicants respectfully traverse.

Applicants are of the opinion that claims 1-3 represent a non-obvious variant of the invention described in claims 1-2 of the '839 patent. Consider Tables 2-3 and 5-6 of the present specification, especially, Example 3.

The teachings provide by claims 1 and 2 of the '839 patent have been considered. There is no teaching of a vinyl group along with a hydrophobic group including methyl containing silyl groups, both affixed to the silica surface. The present claims represent a selection invention. The results shown in Tables 5 and 6 suggest/establish the nonobviousness of the selection. Also consider the sequential paragraphs starting on line on line 13 of page 11 of the specification- vinyl group criticality and destructured silane modified pyrogenic silica.

Reconsideration and withdrawal of the rejection are respectfully requested. The present claims do not represent an improper extension of a patent monopoly by an obvious variant of the claims of the identified patent.

Request for Interview

Applicants respectfully request either a telephonic or an in-person interview should there be any remaining issues.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Therefore, it is respectfully requested that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. 1.136(a), and any fees required therefore are hereby authorized to be charged to **Deposit Account No. 02-4300, Attorney Docket No. 032301.592.**

Respectfully submitted,

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